

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 15)

FOIL the expressions shown below:

1. $(-8x - 5)(8x + 3)$

$$\begin{aligned} &(-8)(8)x^2 + (-8)(3)x + (-5)(8)x + (-5)(3) \\ &(-64)x^2 + (-24)x + (-40)x + (-15) \\ &-64x^2 - 64x - 15 \end{aligned}$$

2. $(8x + 4)(2x + 5)$

$$\begin{aligned} &(8)(2)x^2 + (8)(5)x + (4)(2)x + (4)(5) \\ &(16)x^2 + (40)x + (8)x + (20) \\ &16x^2 + 48x + 20 \end{aligned}$$

3. $(-5x - 5)(5x - 3)$

$$\begin{aligned} &(-5)(5)x^2 + (-5)(-3)x + (-5)(5)x + (-5)(-3) \\ &(-25)x^2 + (15)x + (-25)x + (15) \\ &-25x^2 - 10x + 15 \end{aligned}$$

4. $(-5x + 6)(-5x - 7)$

$$\begin{aligned} &(-5)(-5)x^2 + (-5)(-7)x + (6)(-5)x + (6)(-7) \\ &(25)x^2 + (35)x + (-30)x + (-42) \\ &25x^2 + 5x - 42 \end{aligned}$$

5. $(-7x + 4)(7x - 2)$

$$\begin{aligned} &(-7)(7)x^2 + (-7)(-2)x + (4)(7)x + (4)(-2) \\ &(-49)x^2 + (14)x + (28)x + (-8) \\ &-49x^2 + 42x - 8 \end{aligned}$$

FOIL the expressions shown below:

6. $(4x - 4)(5x - 8)$

$$\begin{aligned}(4)(5)x^2 + (4)(-8)x + (-4)(5)x + (-4)(-8) \\ (20)x^2 + (-32)x + (-20)x + (32) \\ 20x^2 - 52x + 32\end{aligned}$$

7. $(-9x + 6)(2x + 6)$

$$\begin{aligned}(-9)(2)x^2 + (-9)(6)x + (6)(2)x + (6)(6) \\ (-18)x^2 + (-54)x + (12)x + (36) \\ -18x^2 - 42x + 36\end{aligned}$$

8. $(-3x + 5)(-8x - 4)$

$$\begin{aligned}(-3)(-8)x^2 + (-3)(-4)x + (5)(-8)x + (5)(-4) \\ (24)x^2 + (12)x + (-40)x + (-20) \\ 24x^2 - 28x - 20\end{aligned}$$

9. $(-6x - 9)(-9x - 2)$

$$\begin{aligned}(-6)(-9)x^2 + (-6)(-2)x + (-9)(-9)x + (-9)(-2) \\ (54)x^2 + (12)x + (81)x + (18) \\ 54x^2 + 93x + 18\end{aligned}$$

10. $(2x - 9)(-6x - 7)$

$$\begin{aligned}(2)(-6)x^2 + (2)(-7)x + (-9)(-6)x + (-9)(-7) \\ (-12)x^2 + (-14)x + (54)x + (63) \\ -12x^2 + 40x + 63\end{aligned}$$